REMARKS/ARGUMENTS

Claims 1-10 and 14-24 are pending in this application. Within the Office Action, claims 1-10, 23, and 24 are rejected under 35 U.S.C. § 102, and claims 1-10 and 14-24 are rejected under 35 U.S.C. § 103. By way of the above amendments, claims 1 and 10 have been amended; accordingly, claims 1-10 and 14-24 are pending. The Applicants respectfully request reconsideration in light of the amendments made above and the arguments made below.

Rejections under 35 U.S.C. § 102(e)

Claims 1-10, 23, and 24

Within the Office Action, claims 1-10, 23, and 24 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,189,044 (Thomson). The Applicants respectfully traverse these rejections.

Thomson is directed to a method of and system for routing data packets in a communication network. As shown in Thomson's Figure 5, a first routing node 26 receives a data packet from a source node 22 and transmits the data packet to a second routing node 36, which then transmits the data packet to a destination node 34. Later, the physical address of the destination node 34 is sent to the source node 22 (Figures 6a and 6b) so that the source node 22 can send later data packets directly to the destination node 34, without going through the first 26 and second 36 routing nodes. In Figure 6a, Thomson discloses that the first 26 and second 36 routing nodes exchange redirect request and redirect messages. "The redirect message contains updating routing and physical address information for the destination node." (Thomson, col. 3, lines 29-31) This information is address information not routing *performance* information, as recited in claims of the present invention. Thomson does not mention exchanging routing performance information at all.

Claim 1 is directed to a communications back-channel for coordinating routing decisions. The back-channel includes a plurality of routing intelligence units, each of which includes one or more coordination processes programmed to generate and exchange *routing performance information* with the remaining plurality of routing intelligence units. The one or more coordination processes are programmed to exchange routing performance information over a mesh. Thomson does not disclose this structure. Accordingly, claim 1 is allowable over Thomson. Because claims 2-10 and 24 all depend on claim 1, they too are all allowable as depending on an allowable base claim.

Claims 2-10 are allowable for additional reasons. For example, claims 2 and 5 both recite using Border Gateway Protocol (BGP) Sessions. Within the Office Action, it is stated that at column 1, lines 47-55, Thomson discloses BGP sessions. This mischaracterizes Thomson. At column 1, lines 47-55, Thomson makes no mention of BGP sessions. Nor does Thomson recite BGP stacks (claims 6 and 7).

Claims 3, 4, and 7 all recite a "route reflector client," a "route reflector," or both. These terms have specific meanings known to those skilled in the art and refer to elements that readvertise routes between BGP neighbors. Thomson discloses no such elements. Claim 8 recites that the routing performance information includes local path performance characteristics. In Figure 7a, cited within the Office Action, Thomson discloses nothing about local performance characteristics. Claim 9 recites that the routing performance information includes performance scores for routes. Thomson sends addresses not scores. The two are different. At column 4, lines 1-5, cited within the Office Action, Thomson merely states that her invention minimizes bandwidth usage and latency–the goals of her invention. Nowhere does Thomson even mention performance scores for routes. Finally, claim 10 recites using a Local Preference Field in accordance with BGP. Again, Thomson discloses no such element. Nor is this element an "inherent feature of intra-domain," as suggested within the Office Action.

For all of these additional reasons, claims 2-10 are allowable over Thomson.

Claim 23 is directed to a communications back-channel for coordinating routing decisions. The communications back channel includes routing intelligence units, each of which includes one or more coordination processes for exchanging performance information among the plurality of routing intelligence units. As explained above, Thomson does not disclose exchanging performance information. For at least this reason, claim 23 is also allowable over Thomson.

Rejections under 35 U.S.C. § 103

Claims 14-22 in light of Thomson and Civanlar

Within the Office Action, claims 14-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomson in view of U.S. Patent No. 6,078,963 (Civanlar). The Applicants respectfully traverse these rejections.

Thomson has been characterized above. Civanlar is directed to a network router with multiple ports, each having its own forwarding engine, routing engine, and routing database. (Civanlar, Figure 1) Because each router has these elements, bottlenecks, generally associated with centralized routing and forwarding engines, are reduced. (Civanlar, Abstract) Civanlar discloses that the routes may receive information for generating or updating routing tables (id., col. 3, lines 33-37), but this information is generally routing updates, not performance information. Moreover, the routers, by their nature, are used to exchange data; they are not dedicated to exchanging routing performance information, such as recited in claim 14.

Claim 14 is directed to a method of exchanging routing performance information amongst a plurality of decision makers. The plurality of decision makers are in communication via a mesh dedicated to exchanging routing performance information. The method includes asserting a first plurality of preferred routes for a first plurality of prefixes to the subset of routers; and concurrent with the asserting the first plurality of preferred routes, sending a plurality of local performance scores generated from performance measurements for the first plurality of routes to the plurality of decision makers via the mesh.

As explained above, neither Thomson nor Civanlar discloses exchanging routing performance information. Neither Thomson nor Civanlar discloses sending performance scores generated from performance measurements. Indeed, neither Thomson nor Civanlar even mentions performance measurements.

Finally, neither Thomson nor Civanlar discloses concurrently asserting routes and sending performance scores generated from performance measurements over a mesh. Within the Office Action, it is stated that Civanlar, at column 6, lines 30-44, discloses this last element. This is a mischaracterization of Civanlar. At column 6, lines 30-44, Civanlar merely describes that routing table entries may be searched in parallel such as by using linked or ordered lists. Indeed, within the Office Action, Civanlar is characterized as teaching that an "intelligent router could perform a parallel or concurrent search [of a] routing table." But searching elements of a routing table in parallel has no relation to, and does not provide any motivation for, concurrently asserting routes and sending local performance scores to decision makers via a mesh, such as recited in claim 14.

For at least these reasons, claim 14 is allowable over Thomson and Civanlar, either alone or in combination.

Claims 15-22 all depend on claim 14 and are thus all allowable as depending on an allowable base claim.

Claims 15-22 are also allowable for additional reasons. For example, claim 16 recites receiving performance scores. Neither Thomson nor Civanlar discloses performance *scores*. Thomson discloses sending updating routing and a physical address information. (Thomson, col. 3, lines 29-31) Nowhere does Thomson disclose sending a score of any kind. Civanlar discloses receiving routing protocol packets. (Civanlar, col. 3, lines 33-37) Nowhere does Civanlar disclose that these packets contain scores of any kind.

Claims 1-10 and 24 in light of Ahuja and Massey

Within the Office Action, claims 1-10 and 14-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,981,055 (Ahuja) in view of U.S. Pub. No. 20010026537 (Massey). The Applicants respectfully traverse these rejections.

Ahuja and Massey have both been characterized in previous responses. In Figure 18, cited within the Office Action, Ahuja discloses a routing optimization component 104 coupled to BGP bridges 106a-b. The BGP bridges 106a-b in turn are coupled to border routers 608a-b and Network Service Providers (NSP) routers 606_1-606_n. In operation, the routing optimization component 104 determines costs associated with specific routing tables and sends routing tables to the BGP bridges 106a-b. (Ahuja, col. 19, lines 5-8) For the routing optimization component 104 to exchange *any* information with another routing optimization component, it must send the information to the BGP bridges 106a-b, to the NSP routers 606_1- 606_n, and then along a path to the other routing optimization component. In other words, the path from a routing optimization component to a BGP bridge (a networking component) overlaps with the path from the routing optimization component to another routing optimization component–the two paths are not separate.

Massey generally describes a communication mesh. (Massey, ¶ 00004) But Massey does not disclose links coupling routing intelligence units to networking devices that is *separate from* a mesh for communicating routing performance scores between routing intelligence units, such as recited in claim 1.

Claim 1 is directed to a communications back-channel, for coordinating routing decisions. The communications back channel includes a plurality of networking devices, a plurality of routing intelligence units, a mesh, and a set of links. Each of the plurality of routing intelligence units includes software programmed to control a corresponding subset of the plurality of networking devices. Each of the plurality of routing intelligence units includes one

or more processes programmed to control a corresponding subset of networking devices and one or more coordination processes programmed to generate and exchange routing performance information with one or more of the remaining plurality of routing intelligence units. The mesh couples the one or more coordination processes, and the one or more coordination processes are programmed to exchange routing performance information over the mesh. The set of links are *separate from the mesh* and couple the plurality of routing intelligence units to the plurality of networking devices. Advantageously, routing performance information can be exchanged between routing intelligence units faster and more reliably over the separate mesh.

The added limitation of links separate from the mesh and coupling the routing intelligence units to the plurality of networking devices finds support throughout the Specification, such as in Figure 5B and the accompanying text. Accordingly, this added limitation does not add new matter.

As explained above, neither Ahuja, nor Massey, nor their combination discloses a mesh coupling routing intelligence units and coupling processes programmed to exchange routing performance information and a set of links separate from the mesh and coupling the routing intelligence units to the networking devices, such as recited in claim 1. For at least this reason, claim 1 is allowable over Ahuja, Massey, and their combination.

Claims 2-10 and 24 all depend on claim 1 and are thus all allowable as depending on an allowable base claim.

Claims 14-23 were inadvertently rejected in light of Ahuja and Massey

Within the Office Action, claims 14-23 were mistakenly rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahuja in view of Massey. In an Advisory Action mailed January 30, 2007, claims 14-23 were found allowable over Ahuja and Massey. In a July 12, 2007, phone call with the Applicants' attorney (David A. Hill, Registration No. 44,153), the Examiner agreed that claims 14-23 are allowable over Ahuja and Massey and that they were mistakenly rejected in light of this same art. Accordingly, the rejections of claims 14-23 in light of Ahuja and Massey are improper and should be withdrawn.

CONCLUSION

For the reasons given above, the Applicants respectfully submit that claims 1-10 and 14-24 are in condition for allowance, and allowance at an early date would be appreciated. If the Examiner has any questions or comments, he is encouraged to call the undersigned at (408) 530-9700 so that any outstanding issues can be quickly and efficiently resolved.

Respectfully submitted,
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